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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/719,424	12/12/2000	Shiro Kamiyama	Q-62080	7790

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EXAMINER

SHOSHO, CALLIE E

ART UNIT	PAPER NUMBER
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1714

DATE MAILED: 03/10/2003

14

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/719,424

Applicant(s)

KAMIYAMA ET AL.

Examiner

Callie E. Shosho

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. In light of the new grounds of rejection as set forth below, the finality of the previous office action mailed 8/20/02, Paper No. 10, has been withdrawn and the following action is non-final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 8-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites that the formed resin article is “produced by electrostatically coating a resin article which is formed from a resin composition for electrostatic coating, the resin composition comprising...” The scope of the claim is confusing in light of the phrase “resin composition for electrostatic coating” because it is not clear if the resin composition is used to make the formed article, electrostatic coating or both. From the above claim language, it appears that that resin composition is used for both the formed resin article and the electrostatic coating. From page ?? of the specification, it appears that the resin composition is used to form resin article only. Assuming the latter is correct, it is advised that the above phrase be re-written as “produced by electrostatically coating a resin article which is formed from a resin composition wherein the resin composition comprises...”

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ueda et al. (U.S. 5,886,098) in view of Incorvia et al. (U.S. 5,534,192), Kawakami et al. (U.S. 5,574,101), EP 278500, and Seshadri (U.S. 5,219,493).

Ueda et al. disclose a resin composition comprising 2.91-38.8% polyamide elastomer, i.e. polyetherester amide, 60-97% graft copolymer which is obtained by polymerizing monomers including styrene and acrylonitrile in the presence of polymer such as polybutadiene, 0-40% modified vinyl type polymer including copolymers containing at least one ethylenically unsaturated monomer wherein the polymer contains at least one functional group such as carboxyl, epoxy, or amino group, and 0.09-1.2% alkali metal salt. It is further disclosed that the polyetherester amide is made by reacting polyol such as polyethylene glycol with aminocarboxylic acid or lactam (col.2, lines 36-46, col.3, lines 1 and 16-18, col.4, lines 10-16, 48-55, and 59-63, col.5, lines 7-10, 26-27, and 50, col.5, line 64-col.6, line 8, col.6, lines 59-67, col.7, lines 3-55, col.8, lines 52-67, col.11, lines 14-20 and 44-48, and col.12, lines 4-7).

The difference between Ueda et al. and the present claimed invention is the requirement in the claims (a) of specific type of alkali metal salt and (b) that the formed article is electrostatically coated.

With respect to difference (a), Kawakami et al., which is drawn to resin composition comprising polyamide, disclose the use of alkali metal salt such as sodium dodecylbenzenesulfonic acid in order to improve the antistatic effect (col.7, lines 16-21 and 28-35).

In light of the motivation for using specific alkali salt disclosed by Kawakami et al. as described above, it therefore would have been obvious to one of ordinary skill in the art to use

such salt in the composition of Ueda et al. in order to produce a composition with improved antistatic properties.

With respect to difference (b), Ueda et al. in view of Kawakami et al. disclose forming antistatic resin articles from resin composition as disclosed above, however, there is no disclosure that the article is electrostatically coated.

Incorvia et al. disclose that antistatic agents are used to enhance the receptivity of surfaces to electrostatically applied coatings and further disclose that it is advantageous to use antistatic agents for imparting a desired level of conductivity to formed articles such as automobile parts so that the surface will readily accept the electrostatic coating and to ensure good adhesion of the electrostatic coating to the article (col.2, lines 6-9 and col.3, lines 43-48).

EP 278500 discloses that the compositions comprising polyamide, graft copolymers, and modified vinyl polymers such as those disclosed in Ueda et al. are widely used in automobile parts (col.1, lines 15-17).

Seshadri discloses that thermoplastic components used in automobile parts are commonly provided an electrostatic surface coating to produce an attractive, glossy finish (col.1, lines 15-17 and col.5, lines 63-66).

In light of the disclosure (i) of Incorvia et al that antistatic articles readily accept electrostatic coatings, (ii) of EP 278500 that composition comprising polymers of the type utilized in Ueda et al. are widely used in automobile parts, and (iii) of Seshadri that automobile parts are commonly provided an electrostatic surface coating to produce an attractive, glossy finish, it therefore would have been obvious to one of ordinary skill in the art to apply

electrostatic coating to the resin article of Ueda et al. in order to produce article with improved appearance, and thereby arrive at the claimed invention.

7. Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukumoto et al. (U.S. 5,096,995) in view of Incorvia et al. (U.S. 5,534,192), Kawakami et al. (U.S. 5,574,101), EP 278500, and Seshadri (U.S. 5,219,493).

Fukumoto et al. disclose a resin composition comprising 1-40% polyamide elastomer, i.e. polyetherester amide, 1-95% graft copolymer which is obtained by polymerizing monomers including styrene and vinyl cyanide in the presence of rubbery polymer, 1-95% modified vinyl type polymer including copolymers containing at least one ethylenically unsaturated monomer wherein the polymer contains at least one functional group such as carboxyl, epoxy, or amino group, and 0.1% alkali metal salt such as sodium dodecylbenzenesulfonic acid. It is further disclosed that the polyetherester amide is made by reacting polyol with aminocarboxylic acid or lactam (col.1, line 65-col.2, line 5, col.7, lines 48-51, col.8, lines 1-5 and 35-48, col.9, lines 5-22, col.12, lines 15-24, and example 12).

The difference between Fukumoto et al. and the present claimed invention is the requirement in the claims (a) amount of alkali metal salt and (b) that the formed article is electrostatically coated.

With respect to difference (a), Fukumoto et al. disclose the use of 0.1% alkali metal salt, while the present claims require 0.2-5% alkali metal salt.

It is apparent, however, that the instantly claimed amount of alkali metal salt and that taught by Fukumoto et al. are so close to each other that the fact pattern is similar to the one in *In*

re Woodruff, 919 F.2d 1575, USPQ2d 1934 (Fed. Cir. 1990) or *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed.Cir. 1985) where despite a “slight” difference in the ranges the court held that such a difference did not “render the claims patentable” or, alternatively, that “a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough so that one skilled in the art would have expected them to have the same properties”.

In light of the case law cited above and given that there is only a “slight” difference between the amount of alkali metal salt disclosed by Fukumoto et al. and the amount disclosed in the present claims and further given the fact that no criticality is disclosed in the present invention with respect to the amount of alkali metal salt, it therefore would have been obvious to one of ordinary skill in the art that the amount of alkali metal salt disclosed in the present claims is but an obvious variant of the amounts disclosed in Fukumoto et al.

With respect to difference (b), Fukumoto et al. disclose forming antistatic resin articles from resin composition as disclosed above, however, there is no disclosure that the article is electrostatically coated.

Incorvia et al. disclose that antistatic agents are used to enhance the receptivity of surfaces to electrostatically applied coatings and further disclose that it is advantageous to use antistatic agents for imparting a desired level of conductivity to formed articles such as automobile parts so that the surface will readily accept the electrostatic coating and to ensure good adhesion of the electrostatic coating to the article (col.2, lines 6-9 and col.3, lines 43-48).

EP 278500 discloses that the compositions comprising polyamide, graft copolymers, and modified vinyl polymers such as those disclosed in Fukumoto et al. are widely used in automobile parts (col.1, lines 15-17).

Seshadri discloses that thermoplastic components used in automobile parts are commonly provided an electrostatic surface coating to produce an attractive, glossy finish (col.1, lines 15-17 and col.5, lines 63-66).

In light of the disclosure (i) of Incorvia et al that antistatic articles such as automobile parts readily accept electrostatic coatings, (ii) of EP 278500 that composition comprising polymers of the type utilized in Fukumoto et al. are widely used in automobile parts, and (iii) of Seshadri that automobile parts are commonly provided an electrostatic surface coating to produce an attractive, glossy finish, it therefore would have been obvious to one of ordinary skill in the art to apply electrostatic coating to the resin article of Fukumoto et al. in order to produce article with improved appearance, and thereby arrive at the claimed invention.

Response to Arguments

8. Applicants' arguments filed 2/6/03 have been fully considered but they are not persuasive.

Specifically, applicants argue that:

(a) there is no disclosure in Ueda et al. about electrostatic coatability.

(b) The composition of Fukumoto et al. is a permanently antistatic resin composition and not resin composition for electrostatic coating.

(c) There is no disclosure in Incorvia et al. of conditions necessary to obtain a formed article excellent in both electrostatic coatability and physical properties.

(d) There is no disclosure in EP 278500 about electrostatic coatability and further, EP 278500 discloses different resin composition than presently claimed.

(e) There is no disclosure in Seshadri of resin composition necessary to obtain formed article with excellent characteristics.

(f) There is no motivation to combine Ueda et al. or Fukumoto et al., which are each drawn to antistatic resin composition with EP 278500 or Seshadri which are not at all related to antistatic resin compositions.

(g) Ueda et al. and Fukumoto et al. are drawn to antistatic resin articles and that electrostatic coatability is very different from antistaticity.

With respect to argument (a), it is agreed that there is no disclosure in Ueda et al. of electrostatic coatability. This is why Ueda et al. is used in combination with Incorvia et al. which teach that antistatic agents are used to enhance the receptivity of surfaces to electrostatically applied coatings and that it is advantageous to use antistatic agents for imparting a desired level of conductivity to formed articles such as automobile parts so that the surface will readily accept the electrostatic coating and to ensure good adhesion of the electrostatic coating to the article, EP 278500 which discloses that compositions comprising polymers such as those disclosed by Ueda et al. are widely used in automobile parts, and Seshadri which discloses that the thermoplastic components used in automobile parts are commonly provided an electrostatic surface coating. Thus, while there is no disclosure in Ueda et al. of resin article with an electrostatic coating, it is

clear that the antistatic resin articles of Ueda et al. are capable of accepting an electrostatic coating and that it is well known for such antistatic articles to in fact be coated with electrostatic coating, and thus, one of ordinary skill in the art would have arrived at the claimed invention.

With respect to argument (b), it is agreed that Fukumoto et al. is drawn to a permanently antistatic resin composition and that there is no disclosure of resin article made from the resin composition which has an electrostatic coating. However, as disclosed by Incorvia et al., antistatic agents are used to enhance the receptivity of surfaces to electrostatically applied coatings. By imparting a desired level of conductivity to formed articles, the use of antistatic agents allows the formed articles to readily accept an electrostatically applied coating material.

In light of the teaching of Incorvia et al., it is clear that the resin composition of Fukumoto et al. is in fact a resin composition for electrostatic coating.

With respect to argument (c), it is noted that Incorvia et al. is not used to teach resin article formed from resin composition as presently claimed, rather, Incorvia et al. is used to teach that antistatic formed resin articles such as those disclosed by Ueda et al. or Fukumoto et al. are well known to be able to be electrostatically coated, and in combination with EP 278500 and Seshadri, teach formed resin article with electrostatic coating as presently claimed. The resin composition as claimed is already taught by either Ueda et al. in view of Kawakami et al. or Fukumoto et al. Further, given that Ueda et al. in view of Kawakami et al. or Fukumoto et al. each disclose composition as presently claimed, such composition would intrinsically produce article excellent in both electrostatic coatability and physical properties.

Applicants also argue that Ueda et al. and Fukumoto et al. each merely disclose an antistatic resin composition and in no way teach or suggest a resin composition useful for producing a formed article with excellent electrostatic coatability. However, that is why each reference is used in combination with Incorvia et al. which teach that antistatic resin composition are in fact useful for producing a formed article with excellent electrostatic coatability.

With respect to argument (d), it is agreed that there is no disclosure in EP 278500 of electrostatic coatability and further that the resin composition of EP 278500 is not identical to that presently claimed, i.e. no disclosure in EP 278500 of alkali metal salt as presently claimed. However, while EP 278500 does not disclose all the features of the present claimed invention, it is noted that EP 278500 is used as teaching reference, and therefore, it is not necessary for this secondary reference to contain all the features of the presently claimed invention, *In re Nievelt*, 482 F.2d 965, 179 USPQ 224, 226 (CCPA 1973), *In re Keller* 624 F.2d 413, 208 USPQ 871, 881 (CCPA 1981). Rather this reference teaches a certain concept, namely that compositions comprising polymers of the type utilized in Ueda et al. or Fukumoto et al. are widely used in automobile parts, and in combination with the other cited references, discloses the presently claimed invention. If the secondary reference contained all the features of the present claimed invention, it would be identical to the present claimed invention, and there would be no need for secondary references.

With respect to argument (e), similar to the arguments set forth with respect to argument (d) above, it is noted that Seshadri is used as a teaching reference and therefore it is not

necessary for this reference to contain all the features of the presently claimed invention.

Seshadri is not used to teach the presently claimed resin composition but rather is only used to teach that certain formed resin articles, i.e. automobile parts, are well known to possess electrostatic coating.

With respect to argument (f), it is noted that while there is no disclosure in EP 278500 or Seshadri of antistatic resin composition, it is the examiner's position that there is motivation to combine Ueda et al. or Fukumoto et al. with EP 278500 and Seshadri given that EP 278500 discloses that compositions containing polymers of the type disclosed by Ueda et al. or Fukumoto et al. are used for automobile parts while Seshadri discloses that automobile parts typically comprise electrostatic coating.

With respect to argument (g), applicants argue that while antistaticity may be imparted to a resin composition by improving its electrical conductivity in order to obtain a desirable formed article having an electrostatic coating film, a resin composition needs to be used which has not only improved electrical conductivity but also sufficient performance with respect to weight and adhesion of the coating and must produce formed article which possesses good physical properties. However, given that Ueda et al. in view of Kawakami et al. or Fukumoto et al. each disclose resin composition as presently claimed, it is clear that these resin compositions would intrinsically possess good physical properties. Further, it is noted that there is nothing in the presently claims regarding the weight and adhesion of the coating or the physical properties of the coating. The present claims only require that the composition contains specific type and

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amounts of ingredients (A), (B), (C), and (D) which is met by Ueda et al. in view of Kawakami et al. or Fukumoto et al.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Callie E. Shosho whose telephone number is 703-305-0208. The examiner can normally be reached on Monday-Friday (6:30-4:00) Alternate Fridays Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 703-306-2777. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Callie E. Shosho
Examiner
Art Unit 1714

CS
March 6, 2003